

AMENDMENTS TO THE CLAIMS

1. (Original) A method for separation of CO₂ from the combustion gas from a thermal power plant fired with fossil fuel, the method comprising the following steps;

- a) cooling and mixing the combustion gas from the thermal power plant with air;
- b) compressing the combustion gas – air mixture;
- c) reheating the compressed gas from step b) by using it as an oxygen containing gas for combustion of natural gas in a pressurized combustion chamber to form an exhaust gas;
- d) regulating the supply of natural gas and oxygen containing gas in the combustion chamber so that the exhaust gas contains less than 6 % rest oxygen;
- e) keeping the temperature in the exhaust gas between 700 and 900 °C by generation of steam in tubular coils in the combustion chamber;
- f) cooling the exhaust gas and bringing it in contact with an absorbent absorbing CO₂ from the exhaust gas to form a low CO₂ stream and an absorbent with absorbed CO₂;
- g) heating the low CO₂ stream by means of heat exchanges against the hot exhaust gas leaving the combustion chamber; and
- h) expanding the heated low CO₂ stream in turbines.

2. (Original) The method according to claim 1, wherein the absorbent used in step f) with absorbed CO₂ is regenerated to form a CO₂ rich stream and regenerated absorbent.

3. (Previously Presented) The method of claim 1, wherein the steam generated for cooling the pressurized combustion chamber in step e) is expanded in turbines to generate power.

4-9. (Canceled)

10. (Previously Presented) The method of claim 2, wherein the steam generated for cooling the pressurized combustion chamber in step e) is expanded in turbines to generate power.

11-12. (Canceled)